

# The Recognition-Primed Decision Model

## An Alternative to the MDMP for GWOT

**T**he 3rd Infantry Brigade Combat Team (3rd IBCT), 10th Mountain Division, was activated on 16 September 2004 at Fort Drum, New York. The brigade's 4th Battalion, 25th Field Artillery Regiment (4-25 FAR), organized along modular lines, is its organic fires battalion.

Soon after activating with the brigade, the fires battalion leaders realized they needed a planning process that could leverage the battalion's modular capabilities and enable them to develop plans and orders rapidly in the current operating environment: the Global War On Terrorism (GWOT). The battalion commander agreed to an experiment with a new planning model, the recognition-primed decision model, to determine if it could provide the fires battalion enough agility to be effective in GWOT.

Since 4-25 FAR stood up more than a year ago, we have used this model

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very successfully to prepare for a future deployment to Afghanistan—including during a rotation to the Joint Readiness Training Center (JRTC) at Fort Polk, Louisiana. We recommend the model as an alternative to the traditional military decision-making process (MDMP) for GWOT.

The Army's needs in GWOT require rapid planning to produce agility and flexibility. The MDMP does not produce plans and orders quickly enough for the GWOT environment.

This article describes the recognition-primed decision model and how other battalions can use this model.

**Recognition-Primed Model and MDMP Research.** The recognition-primed decision model is a new plan-

ning methodology for standard orders development that is gaining a foothold in the Army. This model allows units to develop feasible plans and orders in time-constrained environments and enables friendly forces to act faster than the enemy.

As described in *FM 5-0 Army Planning and Orders Production*, the MDMP has been the Army's decision-making model for more than two decades. With seven steps and 117 sub-steps, it is an analytical process designed to generate the best solution from a series of options. Theoretically, the MDMP enables a commander to employ tactically sound plans that result in success on the battlefield.<sup>1</sup>

However, recent research reveals that the MDMP actually has the opposite outcome in many cases. The MDMP is a staff-driven regimen that inadvertently isolates the commander from developing the plan.



US Air Force Photo  
by SRA Ave Pele

A group of research scientists from Klein Associates in Fairborn, Ohio, conducted studies of military organizations and planning. It made some startling discoveries.

First, the group found that, with its focus on the staff process, the MDMP separated the commander from planning in most of the reviewed cases. Thus, junior staff officers, the least experienced individuals, had to conceive a workable plan.

Second, contrary to conventional thought, the MDMP produced cautious plans that were poorly suited to the demands of the situation. Researchers attributed this to slavish compliance with the doctrinal planning template.

Lastly, the MDMP slowed an organization's operational tempo (OPTEMPO) and stifled its ability to react to rapidly changing situations.<sup>2</sup>

By contrast, the Klein researchers observed that the recognition-primed decision model is a dynamic alternative that can produce solutions adapted to the situation.

**Model Overview.** This planning model is based on a theory known as "recognition-primed decision making," which is an intuitive process through which leaders naturally make decisions. The recognition-primed decision model leverages the experience of seasoned commanders whose education and training

enable them to assess situations rapidly through pattern recognition, mentally wargame courses of action (COAs) and make timely decisions.

Dr. Gary Klein and Klein Associates have conducted research for military organizations for more than two decades, focusing on how individuals and organizations make decisions. To begin his research, Dr. Klein's premise was that organizational decision making works best when systematically staffed and developed within a group. But his research led to a different conclusion, shattering preconceived views. Here is what Klein Associates found.

First, intuitive decision making uses experience to recognize the patterns in a given situation, such as for example, terrain and an enemy defensive position. Based on pattern recognition gained through training, education and experience, the leader quickly develops a COA in his head to reduce the enemy position.

Through mental wargaming, decision makers usually search for the first COA that will work in a given situation. It is experience—intuition—that enables the leader to imagine how solutions will work.

The Klein researchers found that this is a natural mode of decision making for most individuals. In contrast, the MDMP makes many leaders uncomfort-

able with making decisions because its formalization tends to shield the leader from the process.<sup>3</sup>

In light of these findings, Dr. Klein sought to develop a method of military decision making that leveraged natural human tendencies. The result was the recognition-primed decision model outlined in Figure 1.

The recognition-primed decision model is a four-step process driven by the commander. The staff helps ensure the plan is feasible, acceptable and suitable to the situation. Steps 1, 3 and 4 are similar to the respective steps of mission analysis, wargaming and orders production in the MDMP. The difference is in Step 2. As a tactical planning model, the recognition-primed decision model depends on the commander's input to push the process and save time.

**Step 1. Identify the Mission and Conceptualize the COA.** In this step, the traditional MDMP mission analysis remains critical to the planning process because it provides the organization and commander an understanding of the situation and the ability to visualize how to win. Based on this analysis and then his visualization of the end-of-mission, the commander can provide a single, directed COA to solve the problem at hand and press planning forward.

At the conclusion of mission analysis, the commander must provide guidance

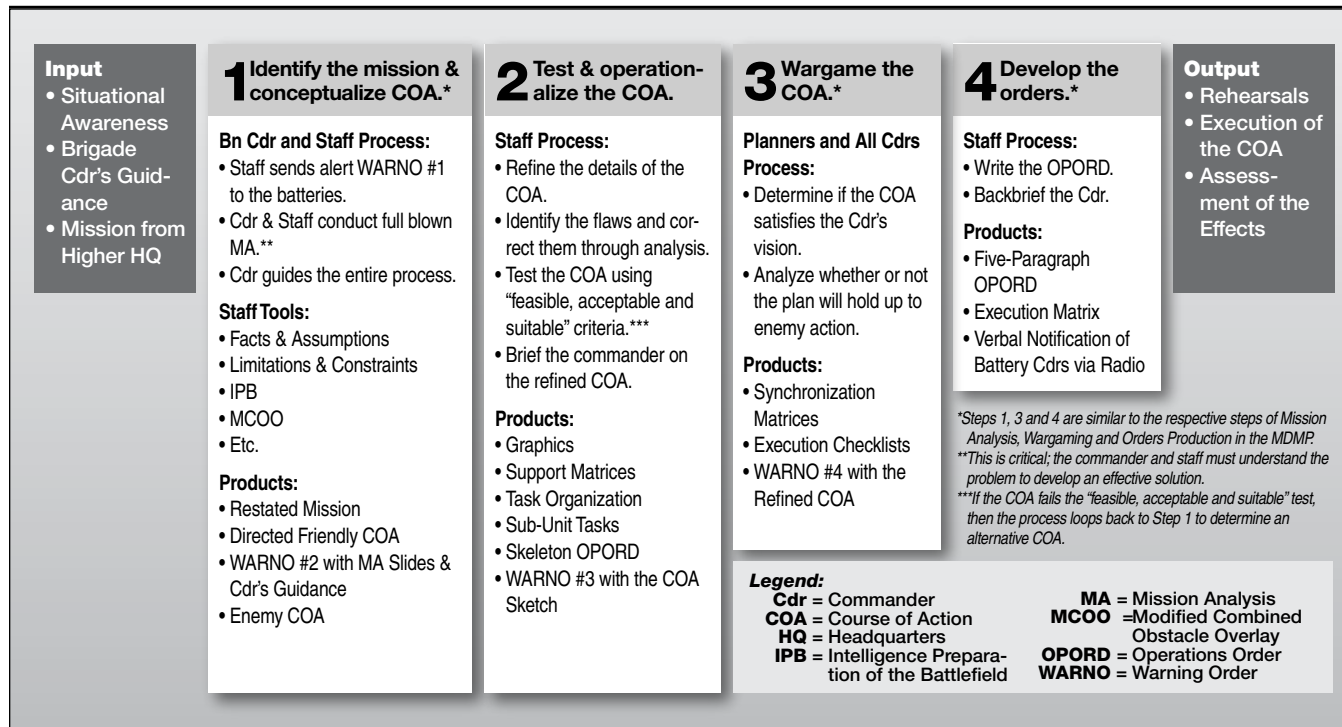


Figure 1: Recognition-Primed Decision Model. This model is an alternative to the more complex and time-consuming military decision-making process (MDMP) in the Global War on Terrorism.



to the staff as to his vision of the battlefield. The commander's mission analysis worksheet (visualize, describe and direct) shown in Figure 2 is a tool to help him do that.

This worksheet provides the framework to help guide the commander's thoughts so he can present them in a coherent manner that makes it easy for his staff to understand. Armed with a clear statement of intent and proposed action, the staff then can move forward to Step 2.

**Step 2. Test and Operationalize the COA.** This step is a major departure from MDMP. Rather than the staff developing and comparing COAs, which is the major time-consumer of the MDMP, the staff adds details to the directed COA to make execution possible and then tests its validity.

Also, instead of the least-experienced leaders in the unit struggling to develop COAs, they work to operationalize the plan.<sup>4</sup> The staff members gain experience vicariously through observation and analysis, thus building their abilities to recognize patterns and devise solutions to complex problems.

The initial COA presented by the commander necessarily will be a skeleton and lack details. Therefore, the staff fleshes out the skeleton with details, such as timing, logistical support, decision points (DPs) and troop-to-task analysis.

It is during the development of the intricacies that the staff identifies flaws

#### Visualize

1. Enemy COA and Current Friendly Disposition (Sketch of Situation)
2. Requirements (What We Must Do)
3. Limitations/Constraints (What We Cannot Do or Restraints on Our Freedom of Action)
4. Capabilities (What We Can Do)

#### Describe

5. Commander's Battlespace—Description of What is Envisioned (Endstate Graphic with Decisive, Shaping and Sustaining Operations Descriptions)
6. Commander's Intent: Purpose, Key Tasks (3-5 Max) and Endstate (Enemy, Friendly, Terrain)

#### Direct

7. Mission (Directed COA Sketch with Deployments, Dispositions, T&P)
8. Task
9. Purpose
10. CCIR: Info the Cdr Must Have to Make Decisions (PIRs and FFIRs)

#### Legend:

**CCIR** = Commander's Critical Information Requirements  
**FFIR** = Friendly Force Information Requirements  
**PIR** = Priority Intelligence Requirements  
**T&P** = Task and Purpose

Figure 2: Commander's Mission Analysis Worksheet

in the plan and refines it to ensure it works.

At the conclusion of Step 2, the staff tests the COA against the "feasible, acceptable and suitable" criteria. This is the same test used in the MDMP to determine the validity of a COA.

If at this time the staff cannot reconcile the plan, it develops a workable alternative to satisfy the commander's intent. If the plan is satisfactory, the staff presents it to the commander in a COA briefing with an updated enemy situation, to include most likely and dangerous COAs; a COA sketch; a written concept statement and concept of support; a command and control architecture; and task and purpose for each subordinate unit.

**Step 3. Wargame the COAs.** The recognition-primed decision model progresses to wargaming in Step 3 to test the validity of the detailed COA against a thinking enemy. This step is virtually no different than wargaming in the MDMP. The key is to conduct a thorough evaluation of the COA with an unbiased enemy.

Wargaming identifies the DPs, branches and sequels to the plan. Using one of the standard methods in doctrine—box, belt or avenue-in-depth—the staff ensures the COA stands up against enemy actions.

The current environment sometimes makes it difficult to wargame because of the varied nonlinear nature of the enemy and the slow, unpredictable environment. To deal with these challenges, our experience in GWOT and planning operations has led us to recommend the DP method of wargaming, as shown in Figure 3.

In this construct, the staff uses the DPs identified in Step 2 to refine the COA. The facilitator, together with the S2, uses the If-And-Then methodology to detail the potential situations in the execution of the COA and determine the information required for the commander's decisions in each of those situations.

As the staff conducts this drill, all members synchronize and integrate their operating systems and begin building the products that will be incorporated into the operations order (OPORD), such as the synchronization matrix.

**Step 4. Develop the Orders.** This is the final step. The staff has steadily developed its products during the process, so by Step 4, the final order is easily collated and formulated. The assistant S3 assembles the parts into a coherent, doctrinal five-paragraph order with applicable annexes for issue at the orders briefing.

The studies Klein Associates conducted have demonstrated that the recognition-primed decision model increases the tempo of developing plans and orders by



Leaders of the 4th Battalion, 25th Field Artillery Regiment (4-25 FAR), work through an urban operations exercise at the Joint Readiness Training Center, Fort Polk, Louisiana.

about 20 percent over the MDMP.<sup>5</sup> The four-step recognition-primed decision model should take about six to eight hours and, under constrained conditions, four hours.

GWOT is forcing the Army to become more agile and flexible as a force. The force requires a planning process that meets those needs and enables rapid development of feasible plans and orders.

We believe that the recognition-primed decision model is a practical solution that can be implemented immediately by any unit. This model compresses planning timelines, gets the commander involved and better facilitates the natural human approach to decision making. Therefore, we offer the recognition-primed decision model as an alternative to the MDMP that can help units become more agile and flexible in prosecuting GWOT.

#### Endnotes:

1. Department of the Army, *FM 5-0 Army Planning and Orders Production* (Washington, DC: US Government Printing Office, 2003), 3-1-3-4.
2. Karol G. Ross, Gary A. Klein, Peter Thunholm, John F. Schmitt and Holly C. Baxter, "The Recognition-Primed Decision Model," *Military Review* (July-August 2004), 6.
3. Ibid. and Gary Klein, *Sources of Power: How People Make Decisions* (Cambridge, MA: MIT Press, 1998), 30.
4. Ross, 7.
5. Ibid., 6.

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A 4-25 FAR Soldier works through the "shoohouse" during training at Avon Park, Florida.


Decision Point	Event/Conditions	If	And	Then
<b>Commit SSE force to HVT.</b>  	<b>Event:</b> ID HVT in accessible location.  <b>Conditions:</b> <i>Intel</i> 1. Established special SIGINT pattern was executed on signature less than 24 hours ago with 8-digit grid. or 2. HUMINT information from source assessed with moderate reliability is less than 48 hours old.  <i>Lift Avn</i> —QRF is available. <i>Man</i> —QRF is available. <i>Fires</i> —Assets are readily available or easily shifted to cover the mission; tanker support is available. <i>Assumable Risk</i> — <ul style="list-style-type: none"> <li>• Illum window is below 30%.</li> <li>• Shift air QRF pilots to day/night.</li> <li>• Reconstitution of QRF is not required.</li> <li>• Weather is marginal.</li> </ul>	<b>PIR 1.</b> The HVT security is less than 20 fighters. <b>PIR 2.</b> There is no SAM threat at the HVT location.	<b>FFIR 1.</b> Friendly force is postured for the operation. <b>FFIR 2.</b> ISR elements/platforms are available or easily re-tasked to support. <b>FFIR 3.</b> CAS/EA-6B/AH-64s are available or easily repositioned. <b>FFIR 4.</b> Weather minimums/illumination is acceptable below 30%. <b>FFIR 5.</b> Target is within 150 NM of BAF, KAF or FOB Salerno.	<b>Decision:</b> Commit SSE force to target. <b>Effects:</b> <ul style="list-style-type: none"> <li>• Capture or destroy HVT.</li> <li>• Exploit for intel value.</li> </ul>
<b>Legend:</b> <b>Avn</b> = Aviation <b>BAF</b> = Bagram Airfield <b>CAS</b> = Close Air Support <b>DP</b> = Decision Point <b>FOB</b> = Forward Operating Base <b>HUMINT</b> = Human Intelligence <b>HVT</b> = High-Value Target <b>ISR</b> = Intelligence, Surveillance and Reconnaissance <b>KAF</b> = Kandahar Airfield <b>Man</b> = Maneuver <b>NM</b> = Nautical Miles <b>QRF</b> = Quick-Reaction Force <b>SAM</b> = Surface-to-Air Missile <b>SIGINT</b> = Signals Intelligence <b>SSE</b> = Sensitive-Site Exploitation				

Figure 3: Decision Support Matrix